PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE MODIFICATION OF A TRAFFIC SIGNAL ON MD 28 (DARNESTOWN RD) AT OWENS GLEN WAY/MAIN STREET IN MONTGOMERY COUNTY. COUNTDOWN PEDESTRATION SIGNAL HEADS ARE TO BE INSTALLED ON THE WEST LEG OF THE INTERSECTION. MD 28 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

INTERSECTION OPERATION NORMAL OPERATION

THE INTERSECTION WILL OPERATE IN A SIX PHASE SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 28 APPROACHES RUNNING CONCURRENTLY AND THE OWENS GLEN WAY/MAIN STREET APPROACHES RUNNING CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT TURN PHASING IS PROVIDED FOR BOTH LEGS OF MD 28.

AN ALTERNATE PEDESTRIAN PHASE WITH COUNTDOWN AND APS WILL BE PROVIDED ACROSS THE WEST LEG OF MD 28. AN ALTERNATE PEDESTRIAN PHASE WITH COUNTDOWN AND APS WILL BE PROVIDED TO CROSS THE SIDE ROADS.

CONTROLLER REQUIREMENTS

AN ASC/2S TRAFFIC SIGNAL CONTROLLER WITH VIDEO INTERFACE EQUIPMENT AND L.A.U. PANEL HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET SHALL BE UTILIZED.

PROJECT CONTACTS

CONTACTS FOR DISTRICT 3:

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY:

MR. JEFF WENTZ ASSISTANT DISTRICT ENGINEER - TRAFFIC MR. RICHARD DAFF SR. CHIEF, TRAFFIC OPERATIONS

PHONE: (301) 513-7358

410-787-7630

MR. AUGIE REBISH DISTRICT UTILITIES ENGINEER MR. ROBERT SNYDER ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS

PHONE: (301) 513-7350

410-787-7630

MR. WAYNE MOWDY

MR. ED RODENHIZER TEAM LEADER SIGNAL OPERATIONS

ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHONE: (301) 513-7304

410-787-7650

410-787-7676

CONTACTS FOR MONTGOMERY COUNTY:

MR. EUGENE BAILEY TEAM LEADER SIGN OPERATIONS

MR. KAMAL HAMUD MONTGOMERY COUNTY D.P.W. - ATMS

A EQUIPMENT TO BE SUPPLIED BY THE SHA 2002 5 CY TEST PIT EXCAVATION 2 WIRE CENTRAL CONTROL UNIT 2 WIRE CENTRAL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON 5 TATION AND SIGNS 9000 4.5 SF SHEET ALUMINUM SIGNS 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 10 ARNESTOWN ROAD* 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 10 ARNESTOWN ROAD* 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 3043 15 LF 10 ARNO SIGNS 10 ARNO SIGNS 10 ARNO SIGNS 10 ARNO SIGNS 11 EA MAINTENANCE OF TRAFFIC PER ASSIGNMENT 2 WIRE CENTRAL CONTROL UNIT 2 WIRE CENTRAL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON 3 TATION AND SIGNS 10 ARNO SIGNS 11 EA PURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 10 ARNO SIGNS 11 EA PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 11 EA PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 12 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 13 EF SIGNAL FOUNDATION 14 EA PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 15 ARROWS ARROUND WIRE 16 AWG STRANDED BARE COPPER GROUND WIRE 17 ARNO STREET* 18 FURNISH AND INSTALL ELECTRICAL HANDHOLE 18 FURNISH AND INSTALL ELECTRICAL HANDHOLE 19 ARNO STREET* 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 3070 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 3070 1 EA FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) 3070 1 EA FURNISH AND INSTALL RIO-4(1) MOD PEDESTRIAN EDUCATION SIGN		NE: (240) 777-8761		ITEM NO.	QUANTITY	DESCRIPTION
AL EQUIPMENT TO BE SUPPLIED BY THE SHA 2002 5 CY TEST PIT EXCAVATION 2 WIRE CENTRAL CONTROL UNIT 2 WIRE CENTRAL CONTROL UNIT 3004 6 EA FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS 3015 5 EA BREAK WAY PEDESTAL POLE (ANY SIZE) 3000 4.5 SF SHEET ALUMINUM SIGNS 3024 6 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 3037 32 SF FURNISH AND INSTALL DETECTABLE WARNING SURFACES 3040 3.5 CY FURNISH AND INSTALL DETECTABLE WARNING SURFACES 3040 3.5 CY FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 3 PVC SCHEDULE 80 CONDUIT - TRENCHED 4 EAR RIO-4 (1) 9"x12" PUSH BUTTON TO CROSS 4062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 4 WARNING SURFACES 5 PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 5 PURNISH AND INSTALL DETECTABLE WARNING SURFACES 5 PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 5 PURNISH AND INSTALL DETECTABLE WARNING SURFACES 5 PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 5 PURNISH AND INSTALL DETECTABLE WARNING SURFACES 5 PURNISH AND INSTALL DETECTABLE WARNING SURFACES 5 PURNISH AND INSTALL DETECTACL HANDHOLE 5 PURNISH AND INSTALL DETECTABLE WARNING SURFACES 6 PURNISH AND INSTALL DETECTRICAL HANDHOLE 6 PURNISH AND INSTALL DETECTRICAL HANDHOLE 7 PURNISH AND INSTALL DETECTRICAL HANDHOLE 8 PURNISH AND INSTALL DETECTRICAL HANDHOLE 8 PURNISH AND INSTALL DETECTRICAL HANDHOLE 9 PURNISH AND INSTALL DETECTABLE WARNIN				1001	1 EA	MAINTENANCE OF TRAFFIC PER ASSIGNMENT
QUANTITY QUANTITY DESCRIPTION 8014 6 EA FURNISH AND INSTALL AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS 9000 4.5 SF SHEET ALUMINUM SIGNS 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 8028 1 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 15 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 15 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 15 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 15 EA FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 15 EA FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 15 EA FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 15 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 15 EAR RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 16 MAY* 2 EA RIO-4 (1) 9*x12* PUSH BUTTON TO CROSS 16 MAY* 3049 35 LF 3" PVC SCHEDULE 80 CONDUIT - TRENCHED 15 ELECTRICAL HANDHOLE 15 ELECTRICAL HANDHOLE 15 ELECTRICAL HANDHOLE 15 ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)				2002	5 CY	TEST PIT EXCAVATION
QUANTITY OUANTITY DESCRIPTION 8015 5 EA BREAKWAY PEDESTAL POLE (ANY SIZE) 9000. 4.5 SF SHEET ALUMINUM SIGNS 8024 6 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 8028 1 EA REMOVE AND DISPOSE OF MATERIALS AND EQUIPMENT PER ASSIGNMENT "DARNESTOWN ROAD" 8037 32 SF FURNISH AND INSTALL DETECTABLE WARNING SURFACES "DARNESTOWN ROAD" 8040 3.5 CY FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 2 EA RIO-4 (I) 9"x12" PUSH BUTTON TO CROSS "OWENS GLEN WAY" 8049 35 LF 3" PVC SCHEDULE 80 CONDUIT - TRENCHED 8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE "MAIN STREET" 8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 8070 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 8070 1 EA FURNISH AND INSTALL ERCOUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGT 8076 1070 LF ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)				8006	1 EA	2 WIRE CENTRAL CONTROL UNIT
9000 4.5 SF SHEET ALUMINUM SIGNS 8024 6 EA FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD 2 EA RIO-4 (I) 9*x12* PUSH BUTTON TO CROSS '8040 3.5 CY FURNISH AND INSTALL DETECTABLE WARNING SURFACES 10 PURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 2 EA RIO-4 (I) 9*x12* PUSH BUTTON TO CROSS '8040 3.5 LF '90WENS GLEN WAY'' 8049 35 LF '90WENS GLEN WAY'' 8049 35 LF '3" PVC SCHEDULE 80 CONDUIT - TRENCHED 2 EA RIO-4 (I) 9*x12* PUSH BUTTON TO CROSS '8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 10 MAIN STREET'' 8070 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 10 FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH 10 FURNISH AND INSTALL CABLE - 2 CONDUCTOR (NO. 14 AWG) 10 FURNISH AND INSTALL CABLE - 5 CONDUCTOR (NO. 14 AWG)	QUANTITY	QUANTITY	DESCRIPTION	8014	6 EA	
2 EA RIO-4 (I) 9"x12" PUSH BUTTON TO CROSS "DARNESTOWN ROAD" 2 EA RIO-4 (I) 9"x12" PUSH BUTTON TO CROSS BO28 BO28 BO28 BO28 BO28 BO28 BO28 BO37 BO37 BO37 BO30 BO30 BO30 BO30 BO30 BO30 BO30 BO30	•			8015	5 EA	BREAKWAY PEDESTAL POLE (ANY SIZE)
*DARNESTOWN ROAD" *000 3.5 CY *000 5.5 CY	9000	4.5 SF	SHEET ALUMINUM SIGNS	8024	6 EA	FURNISH AND INSTALL LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEAD
"DARNESTOWN ROAD" 8037 8040 3.5 CY FURNISH AND INSTALL DETECTABLE WARNING SURFACES FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 2 EA RIO-4 (I) 9"xI2" PUSH BUTTON TO CROSS 8043 15 LF 6 AWG STRANDED BARE COPPER GROUND WIRE "OWENS GLEN WAY" 8049 35 LF 3" PVC SCHEDULE 80 CONDUIT — TRENCHED 8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 8070 1 EA FURNISH AND INSTALL GROUND ROD — 3/4 INCH DIAMETER X 10 FOOT LENGT 8076 1070 LF ELECTRICAL CABLE — 2 CONDUCTOR (NO. 14 AWG) 8078 920 LF ELECTRICAL CABLE — 5 CONDUCTOR (NO. 14 AWG)	•			8028	1 EA	REMOVE AND DISPOSE OF MATERIALS AND EQUIPMENT PER ASSIGNMENT
8040 3.5 CY FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 2 EA RIO-4 (I) 9"x 2" PUSH BUTTON TO CROSS "OWENS GLEN WAY" 2 EA RIO-4 (I) 9"x 2" PUSH BUTTON TO CROSS "MAIN STREET" 8040 3.5 CY FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION 8				8037	32 SF	FURNISH AND INSTALL DETECTABLE WARNING SURFACES
"OWENS GLEN WAY" 2 EA RIO-4 (I) 9"×12" PUSH BUTTON TO CROSS "MAIN STREET" 8049 35 LF 8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 8070 1 EA FURNISH AND INSTALL GROUND ROD — 3/4 INCH DIAMETER X 10 FOOT LENGTH AND LOOP AND COMPANY (NO. 14 AWG) 8076 1070 LF 8078 8089 8090 8078 8078 900 FLECTRICAL CABLE — 5 CONDUCTOR (NO. 14 AWG)				8040	3.5 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
2 EA RIO-4 (I) 9"xI2" PUSH BUTTON TO CROSS "MAIN STREET" 8062 1 EA FURNISH AND INSTALL ELECTRICAL HANDHOLE 8070 1 EA FURNISH AND INSTALL GROUND ROD — 3/4 INCH DIAMETER X 10 FOOT LENGTH STALL CABLE — 2 CONDUCTOR (NO. 14 AWG) 8078 920 LF ELECTRICAL CABLE — 5 CONDUCTOR (NO. 14 AWG)				8043	15 LF	6 AWG STRANDED BARE COPPER GROUND WIRE
2 EA RIO-4 (I) 9"XI2" PUSH BUTTON TO CROSS "MAIN STREET" 8070 1 EA FURNISH AND INSTALL GROUND ROD — 3/4 INCH DIAMETER X 10 FOOT LENGT 8076 1070 LF ELECTRICAL CABLE — 2 CONDUCTOR (NO. 14 AWG) 8078 920 LF ELECTRICAL CABLE — 5 CONDUCTOR (NO. 14 AWG)				8049	35 LF	3" PVC SCHEDULE 80 CONDUIT - TRENCHED
"MAIN STREET" 8070 1 EA FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGT 8076 1070 LF ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) 8078 920 LF ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)				8062	1 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8078 920 LF ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)				8070	1 EA	FURNISH AND INSTALL GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGT
	•			8076	1070 LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
NEG 6 EA INSTALL R10-4(1)MOD PEDESTRIAN EDUCATION SIGN				8078	920 LF	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
				NEG	6 EA	INSTALL R10-4(1)MOD PEDESTRIAN EDUCATION SIGN

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED BY THE CONTRACTOR.

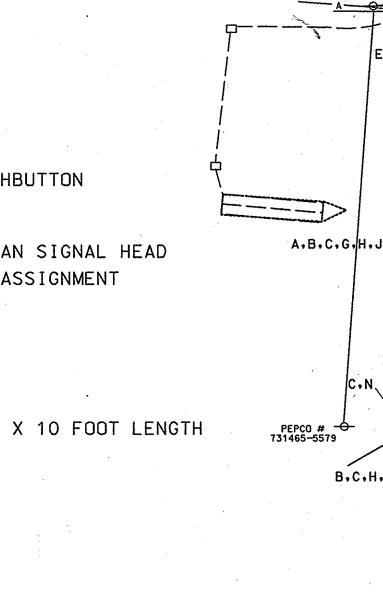
QUANTITY

DESCRIPTION

ALL REMOVED SIGNAL MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR



OWENS

WIRING KEY

Phase 1 + 5

1 & 5 Change

Phase 1 + 6

1 + 6 Change

Phase 2 + 5

2 + 5 Change

Phase 2 + 6

Ped Clearance

2 + 6 Change

Ped Clearance

Flashing

Operation

Phase 4 Alt + 8

4 Alt + 8 Change

2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)

STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.) EXISTING OVERHEAD SERVICE

B.C.H.J

EXISTING PHASING

THE CONTROLLER MAY SKIP TO PHASES 1 + 6 OR 2 + 5 OR 2 + 6

WIRING DIAGRAM

A.B.C.D.E.F.

G.H.J.K.L.M

A.B.C.D.E.F.

A.B.C.D.F. G.H.J.K.L.M

A.B.C.G.H.J

- A.B.C.G.H.J

G.H.J.K.L.M

3/4" DIAMETER × 10' LONG SOLID COPPER GROUND ROD

> TOD No.: AT782-33 SHA No.: MO754A59B59

STATE OF MARYLAND

DW

DW

DW

DW

FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | DARK |

DW

DW

DW

DW

DW

DW

DW

DW |FL/DW|FL/DW|

R |FL/DW|FL/DW|FL/DW| DW

DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC SIGNAL PLAN MD 28 (DARNESTOWN ROAD) AND OWENS GLEN WAY/MAIN ST

REVISION 'D'

CENTURY ENGINEERING, INC.

CONSULTING ENGINEERS - PLANNERS 32 WEST ROAD TOWSON, MARYLAND 21204

SCALE N/A DATE __6/1/06 ____ CONTRACT NO.AT7825185 COUNTY MONTGOMERY DESIGNED BY ALD LOGMILE 15002816.46

DRAWN BY ALD CHECKED BY TH MA TIMS <u>H557</u> F.A.P. NO. ___N/A_ TOD DRAWING NO. 3594 D -GI 2 OF 2 SHEET NO. 2 OF 2

PLOTTED: THÙRSDAY, JUNE 15, 2006 AT 5:25:55 PM FILE: MSG-P002_MD28&MAIN&OWENSGLEN.DGN

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